

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/573,583  
Source: JFWP  
Date Processed by STIC: 4/7/06

# ***ENTERED***

## CRF Errors Edited by the STIC Systems Branch

Serial Number: 10/573,583

CRF Edit Date: 4/7/06  
Edited by: mw

\_\_\_ Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

\_\_\_ Corrected the SEQ ID NO. Sequence numbers edited were:

\_\_\_\_\_

\_\_\_ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

\_\_\_\_\_

\_\_\_ Deleted: \_\_\_ invalid beginning/end-of-file text ; \_\_\_ page numbers

\_\_\_ Inserted mandatory headings/numeric identifiers, specifically:

\_\_\_\_\_

\_\_\_ Moved responses to same line as heading/numeric identifier, specifically:

\_\_\_\_\_

\_\_\_ Other:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



IFWP

## RAW SEQUENCE LISTING

DATE: 04/07/2006

PATENT APPLICATION: US/10/573,583

TIME: 13:02:03

Input Set : A:\PTO.AMC.txt

Output Set : N:\CRF4\04072006\J573583.raw

3 <110> APPLICANT: Bayer AG, BHC

5 <120> TITLE OF INVENTION: Diagnostics and Therapeutics for Diseases Associated with Arginyl

6 Aminopeptidase RNPEP-like (RNPEP-like)

8 <130> FILE REFERENCE: Le A 36 900

C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/573,583

C--> 10 <141> CURRENT FILING DATE: 2006-03-27

10 <160> NUMBER OF SEQ ID NOS: 5

12 <170> SOFTWARE: PatentIn version 3.1

14 <210> SEQ ID NO: 1

15 <211> LENGTH: 3527

16 <212> TYPE: DNA

17 <213> ORGANISM: Homo sapiens

19 <400> SEQUENCE: 1

20	agtaaccccg	agtctgcgga	agtggtgacc	cgtgggacgc	ggctgagaca	ggagactgaa	60
21	aggaaccata	atttgtgaca	tcagttgttt	tctttgataa	gcagctattt	atgattcttg	120
22	aagattaagg	cagataggaa	accccatctg	agattttaat	aaatccctca	aacaataaac	180
23	cacatcatgg	acatacagct	ggaccctgcc	agagatgacc	tgctctcat	ggccaacacc	240
24	agccacatac	ttgtgaagca	ctatgtactg	gatttggatg	tggattttga	aagtcaagtc	300
25	attgagggga	ccatagtgc	tttcctcgag	gatggaaaca	gattcaagaa	acagaatagc	360
26	tctattgagg	aagcctgcca	atcagaatca	aacaaagcct	gcaaatttgg	gatgcctgaa	420
27	ccctgccata	ttcccgtagc	aaatgcaagg	accttctcat	ctgaaatgga	atataatgat	480
28	tttgcaatct	gtagtaaagg	tgaaaaagat	acttctgata	aagatggtaa	ccatgacaac	540
29	caggaacatg	cttctgggat	ttctagctca	aagtactgct	gtgacacagg	gaatcatggg	600
30	agtgaggatt	ttttgctagt	gttggactgc	tgtgatttat	ctgtgttaaa	agtcgaggag	660
31	gtggatgttg	ctgctgtgcc	aggtctggaa	aaatttacia	ggctctctga	gctcacgggt	720
32	gtttctgagg	agttcaggaa	tcagattgta	cgtgaacttg	tgactttgcc	tgcaaatcgt	780
33	tggagggagc	agttagacta	ttacgctcgc	tgcagccagg	ctcctggctg	tgggggaactc	840
34	ctctttgaca	ctgacacttg	gagcttgcat	ataaggaaga	caggggctca	gacagctact	900
35	gactttcctc	atgctatcag	gatatggtac	aaaactaaac	ctgaagggag	atcgggttaca	960
36	tggacctcag	accagagtgg	caggccatgt	gtttatactg	tgggatctcc	cataaacaac	1020
37	agggcccttt	ttccatgcca	ggagccaccc	gttgccatgt	caacatggca	ggctacagtt	1080
38	cgagcagctg	catcttttgt	tgttttaagt	agtggggaaa	attctgcca	accaacgcag	1140
39	ctttgggaag	agtgtcaag	ctggtattac	tatgtaacta	tgccaatgcc	agcctccacc	1200
40	ttcacaattg	cagtgggatg	ctggacagaa	atgaagatgg	agacatggtc	atcaaatgat	1260
41	ttggcaacag	agagaccctt	ctcacccttc	gaggccaact	tcaggcatgt	tgggtgttgc	1320
42	agtcacatgg	aatacccttg	ccgcttcacg	aatgcttcg	ccaccacca	ggagatcatt	1380
43	ctcctacggg	tctttgcccc	tgtgtgcctc	acgggtgcct	gccaagagac	ccttctgcgg	1440
44	ctgatccctc	cttgcccttc	agcagcacat	tctgttctgg	gagcacaccc	gttctctcgg	1500
45	ctggatgttc	tcacgtccc	tgccaacttt	ccaagtctgg	ggatggccag	cccacacatc	1560
46	atgttctctc	ctcagagcat	cttgacagga	gggaaccatc	tctgtgggac	ccgctctgc	1620
47	catgaaattg	cccatgcctg	gtttggccta	gccatcgggg	cccgagactg	gacggaggag	1680
48	tggctgagtg	aaggcttcgc	cactcacttg	gaggatgtgt	tttgggccac	agcacagcag	1740
49	ctggccccct	atgaggcccg	ggagcagcag	gagctgaggg	cttgtctgcg	ctggcgtcgc	1800

## RAW SEQUENCE LISTING

DATE: 04/07/2006

PATENT APPLICATION: US/10/573,583

TIME: 13:02:03

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\04072006\J573583.raw

```

50 ctccaggacg agatgcaatg ctcccccgag gagatgcagg tggttaagggtt tccacatggt 1860
51 ggcggatgca gtggaagctt ctcttgagat ctttgccaca ctgttcaaca tgtttgacca 1920
52 ctctgtccta aaaacgcttt cttcttaaag cactttctcc tcctggcctt cctgagcttc 1980
53 ttcccggagc tgaaggagca gagcgtggac tgccgggcag ggctggaatt cgagcgctgg 2040
54 ctcaatgccca caggccccgcc gctggctgag ccggacctgt ctcagggatc cagcctgacc 2100
55 cggcccgtgg aggccttttt ccagctgtgg accgcagaac ctctggacca ggcagctgcc 2160
56 tcggccagcg ccattgacat ctccaagtgg aggaccttcc agacagcact cttcctggac 2220
57 cggctcctgg atgggtcccc gctgccgcag gaggtggtga tgagcctgtc caagtgtac 2280
58 tcctccctgc tggactcgat gaacgctgag atccgcaccc gctggctgca gattgaggtc 2340
59 cgcaacgact actatcctga cctccacagg gtgcggcgct tcctggagag ccagatgtca 2400
60 cgcatgtaca ccatcccgtc gtacgaggac ctctgcaccg gtgccctcaa gtccttcgcg 2460
61 ctggaggtct tctaccagac gcagggcccg ctgcacccca acctgcgcag agccatccag 2520
62 cagatcctgt cccagggcct gggctccagg acagagcccg cctcagagcc cagcacggag 2580
63 ctgggcaagg ctgaagcaga cacagactcg gacgcacagg ccctgctgct tggggacgag 2640
64 gccccagca gtgccatctc tctcagggac gtcaatgtgt ctgcctagcc ctggtggcgg 2700
65 gctgacctc gacctcccag acaccacaat tgtgccttct gtggggccagg cctgccatga 2760
66 ctgctctcgc gctctggcca tgagctctgc ccaggcccac aagccccctc cctgggctct 2820
67 cccaggcagg gagaatgggg agagggacct ccttgtgtct ggcagagacc tgtggacctg 2880
68 gcctccccac tcccagctct cttgactgc aggcctggg gccagccgc acacaccatg 2940
69 cctcctgtct caacactgac agctgtgcct agccccgat gccagcacct gccaggtgcc 3000
70 gccccggggc aagggcccca gcagccctat ggtgaccgcc acactgtgcc ttaatgtctg 3060
71 ccggggggcc aggtgtgct gtccctgcag cacgcctcct tgcagggatc tgagccaccc 3120
72 tccccgcaca gccctgcacc ccgcccctgg ggttggcagc ctcagttggc ccctggcaga 3180
73 ggaacaagga cacagacatt ccctcagtgt ggggggcagg ggacacaggg agaggatggt 3240
74 tgtccctggg gagggccctc tggccccagg caaccttagc ccctcagaac agggagtccc 3300
75 aggaccagg gagagtgtgg ggacaggaca gcctgtctct tgtagcttcc tggggtggga 3360
76 ggcacagggg caaagcaata ccccagggaa agtgggaggt ggtgctggtg ctctctccag 3420
77 gcccaccatg ctgggagagg cggccagagc ctggggcctc cagcctggga ctgctgtgat 3480
78 ggggtatcac ggtgatggtc ccattaaact tccactctgc aaacctg 3527

```

80 &lt;210&gt; SEQ ID NO: 2

81 &lt;211&gt; LENGTH: 566

82 &lt;212&gt; TYPE: PRT

83 &lt;213&gt; ORGANISM: Homo sapiens

85 &lt;400&gt; SEQUENCE: 2

```

86 Met Asp Ile Gln Leu Asp Pro Ala Arg Asp Asp Leu Pro Leu Met Ala
87 1 5 10 15
88 Asn Thr Ser His Ile Leu Val Lys His Tyr Val Leu Asp Leu Asp Val
89 20 25 30
90 Asp Phe Glu Ser Gln Val Ile Glu Gly Thr Ile Val Leu Phe Leu Glu
91 35 40 45
92 Asp Gly Asn Arg Phe Lys Lys Gln Asn Ser Ser Ile Glu Glu Ala Cys
93 50 55 60
94 Gln Ser Glu Ser Asn Lys Ala Cys Lys Phe Gly Met Pro Glu Pro Cys
95 65 70 75 80
96 His Ile Pro Val Thr Asn Ala Arg Thr Phe Ser Ser Glu Met Glu Tyr
97 85 90 95
98 Asn Asp Phe Ala Ile Cys Ser Lys Gly Glu Lys Asp Thr Ser Asp Lys
99 100 105 110
100 Asp Gly Asn His Asp Asn Gln Glu His Ala Ser Gly Ile Ser Ser Ser

```

## RAW SEQUENCE LISTING

DATE: 04/07/2006

PATENT APPLICATION: US/10/573,583

TIME: 13:02:03

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\04072006\J573583.raw

101		115		120		125										
102	Lys	Tyr	Cys	Cys	Asp	Thr	Gly	Asn	His	Gly	Ser	Glu	Asp	Phe	Leu	Leu
103		130					135					140				
104	Val	Leu	Asp	Cys	Cys	Asp	Leu	Ser	Val	Leu	Lys	Val	Glu	Glu	Val	Asp
105	145					150					155					160
106	Val	Ala	Ala	Val	Pro	Gly	Leu	Glu	Lys	Phe	Thr	Arg	Ser	Pro	Glu	Leu
107					165					170					175	
108	Thr	Val	Val	Ser	Glu	Glu	Phe	Arg	Asn	Gln	Ile	Val	Arg	Glu	Leu	Val
109				180					185					190		
110	Thr	Leu	Pro	Ala	Asn	Arg	Trp	Arg	Glu	Gln	Leu	Asp	Tyr	Tyr	Ala	Arg
111			195				200					205				
112	Cys	Ser	Gln	Ala	Pro	Gly	Cys	Gly	Glu	Leu	Leu	Phe	Asp	Thr	Asp	Thr
113		210				215						220				
114	Trp	Ser	Leu	Gln	Ile	Arg	Lys	Thr	Gly	Ala	Gln	Thr	Ala	Thr	Asp	Phe
115	225				230					235						240
116	Pro	His	Ala	Ile	Arg	Ile	Trp	Tyr	Lys	Thr	Lys	Pro	Glu	Gly	Arg	Ser
117				245					250					255		
118	Val	Thr	Trp	Thr	Ser	Asp	Gln	Ser	Gly	Arg	Pro	Cys	Val	Tyr	Thr	Val
119				260					265				270			
120	Gly	Ser	Pro	Ile	Asn	Asn	Arg	Ala	Leu	Phe	Pro	Cys	Gln	Glu	Pro	Pro
121			275				280					285				
122	Val	Ala	Met	Ser	Thr	Trp	Gln	Ala	Thr	Val	Arg	Ala	Ala	Ala	Ser	Phe
123		290				295					300					
124	Val	Val	Leu	Met	Ser	Gly	Glu	Asn	Ser	Ala	Lys	Pro	Thr	Gln	Leu	Trp
125	305				310					315						320
126	Glu	Glu	Cys	Ser	Ser	Trp	Tyr	Tyr	Tyr	Val	Thr	Met	Pro	Met	Pro	Ala
127				325					330					335		
128	Ser	Thr	Phe	Thr	Ile	Ala	Val	Gly	Cys	Trp	Thr	Glu	Met	Lys	Met	Glu
129			340				345					350				
130	Thr	Trp	Ser	Ser	Asn	Asp	Leu	Ala	Thr	Glu	Arg	Pro	Phe	Ser	Pro	Ser
131			355				360					365				
132	Glu	Ala	Asn	Phe	Arg	His	Val	Gly	Val	Cys	Ser	His	Met	Glu	Tyr	Pro
133		370				375					380					
134	Cys	Arg	Phe	Gln	Asn	Ala	Ser	Ala	Thr	Thr	Gln	Glu	Ile	Ile	Pro	His
135	385				390					395						400
136	Arg	Val	Phe	Ala	Pro	Val	Cys	Leu	Thr	Gly	Ala	Cys	Gln	Glu	Thr	Leu
137				405					410					415		
138	Leu	Arg	Leu	Ile	Pro	Pro	Cys	Leu	Ser	Ala	Ala	His	Ser	Val	Leu	Gly
139			420				425					430				
140	Ala	His	Pro	Phe	Ser	Arg	Leu	Asp	Val	Leu	Ile	Val	Pro	Ala	Asn	Phe
141			435				440					445				
142	Pro	Ser	Leu	Gly	Met	Ala	Ser	Pro	His	Ile	Met	Phe	Leu	Ser	Gln	Ser
143		450				455					460					
144	Ile	Leu	Thr	Gly	Gly	Asn	His	Leu	Cys	Gly	Thr	Arg	Leu	Cys	His	Glu
145	465				470					475						480
146	Ile	Ala	His	Ala	Trp	Phe	Gly	Leu	Ala	Ile	Gly	Ala	Arg	Asp	Trp	Thr
147				485					490					495		
148	Glu	Glu	Trp	Leu	Ser	Glu	Gly	Phe	Ala	Thr	His	Leu	Glu	Asp	Val	Phe
149			500				505					510				

## RAW SEQUENCE LISTING

DATE: 04/07/2006

PATENT APPLICATION: US/10/573,583

TIME: 13:02:03

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\04072006\J573583.raw

```

150 Trp Ala Thr Ala Gln Gln Leu Ala Pro Tyr Glu Ala Arg Glu Gln Gln
151          515          520          525
152 Glu Leu Arg Ala Cys Leu Arg Trp Arg Arg Leu Gln Asp Glu Met Gln
153          530          535          540
154 Cys Ser Pro Glu Glu Met Gln Val Leu Arg Phe Pro His Val Gly Gly
155 545          550          555          560
156 Cys Ser Gly Ser Phe Ser
157          565
159 <210> SEQ ID NO: 3
160 <211> LENGTH: 20
161 <212> TYPE: DNA
162 <213> ORGANISM: artificial sequence
164 <220> FEATURE:
165 <223> OTHER INFORMATION: forward primer
167 <400> SEQUENCE: 3
168 ccaggacgag atgcaatgct
170 <210> SEQ ID NO: 4
171 <211> LENGTH: 18
172 <212> TYPE: DNA
173 <213> ORGANISM: artificial sequence
175 <220> FEATURE:
176 <223> OTHER INFORMATION: reverse primer
178 <400> SEQUENCE: 4
179 tgcattccgcc aacatgtg
181 <210> SEQ ID NO: 5
182 <211> LENGTH: 25
183 <212> TYPE: DNA
184 <213> ORGANISM: artificial sequence
186 <220> FEATURE:
187 <223> OTHER INFORMATION: probe
189 <400> SEQUENCE: 5
190 cgaggagatg caggtgttaa ggttt

```

VERIFICATION SUMMARY

DATE: 04/07/2006

PATENT APPLICATION: US/10/573,583

TIME: 13:02:04

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\04072006\J573583.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application No

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date

## **Raw Sequence Listing before editing (for reference only)**





IFWP

## RAW SEQUENCE LISTING

DATE: 04/06/2006

PATENT APPLICATION: US/10/573,583

TIME: 10:42:51

Input Set : A:\~\$PTO.TS.14.txt

Output Set: N:\CRF4\04062006\J573583.raw

**Does Not Comply  
Corrected Diskette Needed**

3 <110> APPLICANT: Bayer AG, BHC  
 5 <120> TITLE OF INVENTION: Diagnostics and Therapeutics for Diseases Associated  
 6 with Arginyl Aminopeptidase RNPEP-like (RNPEP-like)  
 8 <130> FILE REFERENCE: Le A 36 900  
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/573,583  
 C--> 10 <141> CURRENT FILING DATE: 2006-03-27  
 10 <160> NUMBER OF SEQ ID NOS: 5  
 12 <170> SOFTWARE: PatentIn version 3.1  
 14 <210> SEQ ID NO: 1  
 15 <211> LENGTH: 3527  
 16 <212> TYPE: DNA  
 17 <213> ORGANISM: Homo sapiens  
 19 <400> SEQUENCE: 1

P.4

20	agtaacccccg	agtctgcgga	agtggtgacc	cgtgggacgc	ggctgagaca	ggagactgaa	60
21	aggaaccata	atttgtgaca	tcagttgttt	tctttgataa	gcagctattt	atgattctgg	120
22	aagattaagg	cagataggaa	accccatctg	agattttaat	aaatccctca	aacaataaac	180
23	cacatcatgg	acatacagct	ggaccctgcc	agagatgacc	tgccctctcat	ggccaacacc	240
24	agccacatac	ttgtgaagca	ctatgtactg	gattttggatg	tggattttga	aagtcaagtc	300
25	attgagggga	ccatagtgtc	tttcctcgag	gatggaaaca	gattcaagaa	acagaatagc	360
26	tctattgagg	aagcctgcc	atcagaatca	aacaaagcct	gcaaatttgg	gatgcctgaa	420
27	ccctgccata	ttcccgtagc	aaatgcaagg	accttctcat	ctgaaatgga	atataatgat	480
28	tttgcaatct	gtagtaaagg	tgaaaaagat	acttctgata	aagatggtaa	ccatgacaac	540
29	caggaacatg	cttctgggat	ttctagctca	aagtactgct	gtgacacagg	gaatcatggg	600
30	agtgaggatt	ttttgtagt	gttgactgc	tgtgatttat	ctgtgttaaa	agtcgaggag	660
31	gtggatgttg	ctgctgtgcc	aggtctggaa	aaatttacaa	ggctcctctga	gctcacgggt	720
32	gtttctgagg	agttcaggaa	tcagattgta	cgtgaacttg	tgactttgcc	tgcaaatcgt	780
33	tggagggagc	agttagacta	ttacgctcgc	tgcagccagg	ctcctggctg	tggggaactc	840
34	ctctttgaca	ctgacacttg	gagcttgcat	ataagggaag	caggggctca	gacagctact	900
35	gactttcctc	atgctatcag	gatatggtac	aaaactaaac	ctgaagggcg	atcggttaca	960
36	tggacctcag	accagagtgg	caggccatgt	gtttatactg	tgggatctcc	cataaacaac	1020
37	agggcccttt	ttccatgcc	ggagccaccc	gttgccatgt	caacatggca	ggctacagtt	1080
38	cgagcagctg	catcttttgt	tgttttaatg	agtggggaaa	attctgcca	accaacgcag	1140
39	ctttgggaag	agtgtcaag	ctggtattac	tatgtaacta	tgccaatgcc	agcctccacc	1200
40	ttcacaattg	cagtgggatg	ctggacagaa	atgaagatgg	agacatggtc	atcaaatgat	1260
41	ttggcaacag	agagaccctt	ctcaccttct	gaggccaact	tcaggcatgt	tgggtgttgc	1320
42	agtcacatgg	aatacccctg	ccgcttccag	aatgcttctg	ccaccaccca	ggagatcatt	1380
43	cctcatcggg	tctttgcccc	tgtgtgcctc	acgggtgcct	gccaagagac	ccttctgcgg	1440
44	ctgateccctc	cttgccctctc	agcagcacat	tctgttcttg	gagcacaccc	gttctctcgg	1500
45	ctggatgttc	tcacgtccc	tgccaacttt	ccaagtctgg	ggatggccag	cccacacatc	1560
46	atgttctctc	ctcagagcat	cttgacagga	gggaaccatc	tctgtgggac	ccgcctctgc	1620
47	catgaaattg	cccagcctg	gtttggccta	gccatcgggg	cccagactg	gacggaggag	1680
48	tggctgagtg	aaggcttcgc	cactcacttg	gaggatgtgt	tttgggccac	agcacagcag	1740
49	ctggccccct	atgaggcccg	ggagcagcag	gagctgaggg	cttgtctgcg	ctggcgctgc	1800

## RAW SEQUENCE LISTING

DATE: 04/06/2006

PATENT APPLICATION: US/10/573,583

TIME: 10:42:51

Input Set : A:\~\$PTO.TS.14.txt

Output Set: N:\CRF4\04062006\J573583.raw

```

50 ctccaggacg agatgcaatg ctcccccgag gagatgcagg tggttaagggtt tccacatggt 1860
51 ggcgatgca gtggaagctt ctcttgagat ctttgccaca ctgttcaaca tgtttgacca 1920
52 ctctgtccta aaaacgcttt ctctttaaag cactttctcc tcttggcctt cctgagcttc 1980
53 ttccccgagc tgaaggagca gagcgtggac tgccgggcag ggctggaatt cgagcgtgg 2040
54 ctcaatgcca caggcccgcc gctggctgag ccggacctgt ctcaaggatc cagcctgacc 2100
55 cggcccgctg aggccttttt ccagctgtgg accgcagaac ctctggacca ggcagctgcc 2160
56 tcggccagcg ccattgacat ctccaagtgg aggaccttcc agacagcact ctctctggac 2220
57 cggctcctgg atgggtcccc gctgcccgag gaggtggtga tgagcctgtc caagtgttac 2280
58 tcttccctgc tggactcgat gaacgctgag atccgcaccc gctggctgca gattgaggtc 2340
59 cgcaacgact actatcctga cctccacagg gtgcgccgct tcttggagag ccagatgtca 2400
60 cgcatgtaca ccattccgct gtacgaggac ctctgcaccg gtgcccctca gtccttcgcg 2460
61 ctggaggtct tctaccagac gcagggccgg ctgcacccca acctgcgcag agccatccag 2520
62 cagatcctgt cccagggcct gggtccagc acagagcccg cctcagagcc cagcacggag 2580
63 ctgggcaagg ctgaagcaga cacagactcg gacgcacagg cctgctgct tggggacgag 2640
64 gccccagca gtgccatctc tctcagggac gtcaatgtgt ctgcctagcc ctgttggcgg 2700
65 gctgaccctc gacctccag acaccacaat tgtgccttct gtggggccagg cctgccatga 2760
66 ctgctctctc gctctggcca tgagctctgc ccaggccccc aagccccctc cctgggctct 2820
67 cccaggcagg gagaatgggg agagggacct ccttgtgtct ggcagagacc tgtggacctg 2880
68 gcctccccac tcccagctct cttgcaactg aggccttggg gccagccgc acacaccatg 2940
69 cctcctgtct caacactgac agctgtgctt agccccggat gccagcacct gccagggtgcc 3000
70 gccccggggc aaggggccca gcagccctat ggtgaccgcc acactgtgcc ttaatgtctg 3060
71 ccggggggccc aggtgtgtct gtccctgcag cacgcctcct tgcagggatc tgagccaccc 3120
72 tccccgcaca gccctgcacc ccgcccctgg ggttggcagc ctcaagttggc ccctggcaga 3180
73 ggaacaagga cacagacatt ccctcagtgt gggggggcagg ggacacaggg agaggatggt 3240
74 tgtccctggg gagggccctc tggccccagg caaccttagc ccctcagaac agggagtccc 3300
75 aggaccagg gagagtgtgg ggacaggaca gcctgtctct tgtagcttcc tgggggtgga 3360
76 ggcacagggg caaagcaata cccaggggaa agtgggaggt ggtgctggtg ctctctccag 3420
77 gcccaccatg ctgggagagg cggccagagc ctggggcctc cagcctggga ctgctgtgat 3480
78 ggggtatcac ggtgatggtc ccattaaact tccactctgc aaacctg 3527

```

80 &lt;210&gt; SEQ ID NO: 2

81 &lt;211&gt; LENGTH: 566

82 &lt;212&gt; TYPE: PRT

83 &lt;213&gt; ORGANISM: Homo sapiens

85 &lt;400&gt; SEQUENCE: 2

```

86 Met Asp Ile Gln Leu Asp Pro Ala Arg Asp Asp Leu Pro Leu Met Ala
87 1 5 10 15
88 Asn Thr Ser His Ile Leu Val Lys His Tyr Val Leu Asp Leu Asp Val
89 20 25 30
90 Asp Phe Glu Ser Gln Val Ile Glu Gly Thr Ile Val Leu Phe Leu Glu
91 35 40 45
92 Asp Gly Asn Arg Phe Lys Lys Gln Asn Ser Ser Ile Glu Glu Ala Cys
93 50 55 60
94 Gln Ser Glu Ser Asn Lys Ala Cys Lys Phe Gly Met Pro Glu Pro Cys
95 65 70 75 80
96 His Ile Pro Val Thr Asn Ala Arg Thr Phe Ser Ser Glu Met Glu Tyr
97 85 90 95
98 Asn Asp Phe Ala Ile Cys Ser Lys Gly Glu Lys Asp Thr Ser Asp Lys
99 100 105 110
100 Asp Gly Asn His Asp Asn Gln Glu His Ala Ser Gly Ile Ser Ser Ser

```

## RAW SEQUENCE LISTING

DATE: 04/06/2006

PATENT APPLICATION: US/10/573,583

TIME: 10:42:51

Input Set : A:\~\$PTO.TS.14.txt

Output Set: N:\CRF4\04062006\J573583.raw

101	115	120	125
102 Lys Tyr Cys Cys Asp Thr Gly Asn His Gly Ser Glu Asp Phe Leu Leu			
103 130	135	140	
104 Val Leu Asp Cys Cys Asp Leu Ser Val Leu Lys Val Glu Glu Val Asp			
105 145	150	155	160
106 Val Ala Ala Val Pro Gly Leu Glu Lys Phe Thr Arg Ser Pro Glu Leu			
107 165	170	175	
108 Thr Val Val Ser Glu Glu Phe Arg Asn Gln Ile Val Arg Glu Leu Val			
109 180	185	190	
110 Thr Leu Pro Ala Asn Arg Trp Arg Glu Gln Leu Asp Tyr Tyr Ala Arg			
111 195	200	205	
112 Cys Ser Gln Ala Pro Gly Cys Gly Glu Leu Leu Phe Asp Thr Asp Thr			
113 210	215	220	
114 Trp Ser Leu Gln Ile Arg Lys Thr Gly Ala Gln Thr Ala Thr Asp Phe			
115 225	230	235	240
116 Pro His Ala Ile Arg Ile Trp Tyr Lys Thr Lys Pro Glu Gly Arg Ser			
117 245	250	255	
118 Val Thr Trp Thr Ser Asp Gln Ser Gly Arg Pro Cys Val Tyr Thr Val			
119 260	265	270	
120 Gly Ser Pro Ile Asn Asn Arg Ala Leu Phe Pro Cys Gln Glu Pro Pro			
121 275	280	285	
122 Val Ala Met Ser Thr Trp Gln Ala Thr Val Arg Ala Ala Ala Ser Phe			
123 290	295	300	
124 Val Val Leu Met Ser Gly Glu Asn Ser Ala Lys Pro Thr Gln Leu Trp			
125 305	310	315	320
126 Glu Glu Cys Ser Ser Trp Tyr Tyr Tyr Val Thr Met Pro Met Pro Ala			
127 325	330	335	
128 Ser Thr Phe Thr Ile Ala Val Gly Cys Trp Thr Glu Met Lys Met Glu			
129 340	345	350	
130 Thr Trp Ser Ser Asn Asp Leu Ala Thr Glu Arg Pro Phe Ser Pro Ser			
131 355	360	365	
132 Glu Ala Asn Phe Arg His Val Gly Val Cys Ser His Met Glu Tyr Pro			
133 370	375	380	
134 Cys Arg Phe Gln Asn Ala Ser Ala Thr Thr Gln Glu Ile Ile Pro His			
135 385	390	395	400
136 Arg Val Phe Ala Pro Val Cys Leu Thr Gly Ala Cys Gln Glu Thr Leu			
137 405	410	415	
138 Leu Arg Leu Ile Pro Pro Cys Leu Ser Ala Ala His Ser Val Leu Gly			
139 420	425	430	
140 Ala His Pro Phe Ser Arg Leu Asp Val Leu Ile Val Pro Ala Asn Phe			
141 435	440	445	
142 Pro Ser Leu Gly Met Ala Ser Pro His Ile Met Phe Leu Ser Gln Ser			
143 450	455	460	
144 Ile Leu Thr Gly Gly Asn His Leu Cys Gly Thr Arg Leu Cys His Glu			
145 465	470	475	480
146 Ile Ala His Ala Trp Phe Gly Leu Ala Ile Gly Ala Arg Asp Trp Thr			
147 485	490	495	
148 Glu Glu Trp Leu Ser Glu Gly Phe Ala Thr His Leu Glu Asp Val Phe			
149 500	505	510	

## RAW SEQUENCE LISTING

DATE: 04/06/2006

PATENT APPLICATION: US/10/573,583

TIME: 10:42:51

Input Set : A:\~\$PTO.TS.14.txt

Output Set: N:\CRF4\04062006\J573583.raw

150 Trp Ala Thr Ala Gln Gln Leu Ala Pro Tyr Glu Ala Arg Glu Gln Gln  
 151           515                           520                           525  
 152 Glu Leu Arg Ala Cys Leu Arg Trp Arg Arg Leu Gln Asp Glu Met Gln  
 153           530                           535                           540  
 154 Cys Ser Pro Glu Glu Met Gln Val Leu Arg Phe Pro His Val Gly Gly  
 155 545                                   550                           555                           560  
 156 Cys Ser Gly Ser Phe Ser

157                           565

159 &lt;210&gt; SEQ ID NO: 3

160 &lt;211&gt; LENGTH: 20

161 &lt;212&gt; TYPE: DNA

162 &lt;213&gt; ORGANISM: artificial sequence

164 &lt;220&gt; FEATURE:

165 &lt;223&gt; OTHER INFORMATION: forward primer

167 &lt;400&gt; SEQUENCE: 3

168 ccaggacgag atgcaatgct

20

170 &lt;210&gt; SEQ ID NO: 4

171 &lt;211&gt; LENGTH: 18

172 &lt;212&gt; TYPE: DNA

173 &lt;213&gt; ORGANISM: artificial sequence

175 &lt;220&gt; FEATURE:

176 &lt;223&gt; OTHER INFORMATION: reverse primer

178 &lt;400&gt; SEQUENCE: 4

179 tgcacccgcc aacatgtg

18

181 &lt;210&gt; SEQ ID NO: 5

182 &lt;211&gt; LENGTH: 25

183 &lt;212&gt; TYPE: DNA

184 &lt;213&gt; ORGANISM: artificial sequence

186 &lt;220&gt; FEATURE:

187 &lt;223&gt; OTHER INFORMATION: probe

189 &lt;400&gt; SEQUENCE: 5

190 cgaggagatg caggtgttaa ggttt

25

W--&gt; 192 Le A 36 900-Foreign Countries

W--&gt; 195 - 5 -

## VERIFICATION SUMMARY

DATE: 04/06/2006

PATENT APPLICATION: US/10/573,583

TIME: 10:42:52

Input Set : A:\~\$PTO.TS.14.txt

Output Set: N:\CRF4\04062006\J573583.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application No  
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:192 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:5  
L:195 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:5